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TECHNICAL REPORT  
NATICK/TR-81/006

**ENERGY RATING OF FOOD SERVICE  
EQUIPMENT USED IN ARMY DINING  
FACILITIES**

by

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and

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October 1980

UNITED STATES ARMY  
NATICK RESEARCH and DEVELOPMENT LABORATORIES  
NATICK, MASSACHUSETTS 01760



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REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER NATICK/TR-80/006	2. GOVT ACCESSION NO. AD-A100 919	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) ENERGY RATING OF FOOD SERVICE EQUIPMENT USED IN ARMY DINING FACILITIES.	5. TYPE OF REPORT & PERIOD COVERED Technical Report.	
7. AUTHOR(s) K. H. Hu, R. A. Lampi, and M. Meyers	6. PERFORMING ORG. REPORT NUMBER FEL-105	
9. PERFORMING ORGANIZATION NAME AND ADDRESS US Army Natick Research & Development Command Natick, Massachusetts 01760	8. CONTRACT OR GRANT NUMBER(s) N/A	
11. CONTROLLING OFFICE NAME AND ADDRESS Food Systems Equipment Div., Food Engineering Lab US Army Natick Research & Development Command Natick, Massachusetts 01760	10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS 728012.19000	
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) 1267	12. REPORT DATE 11 November 1979	
	13. NUMBER OF PAGES 66	
	15. SECURITY CLASS. (of this report) UNCLASSIFIED	
	15a. DECLASSIFICATION/DOWNGRADING SCHEDULE N/A	
16. DISTRIBUTION STATEMENT (of this Report)  Approved for public release; distribution unlimited.		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number)		
Food Service	Equipment Efficiencies	Energy Efficiencies
Food Equipment	Btu Ratings	Energy Evaluations
Military Food Service	Energy Ratings	
20. ABSTRACT (Continue on reverse side if necessary and identify by block number)		
<p>This report provides energy ratings (in terms of Btu consumption) of food service equipment that might be used in Army dining facilities. A Btu Rating List is attached to this report (Appendix) so that energy consumption of equipment can be readily compared. This report also furnishes a simple computation for calculating the costs of energy for operation. It also shows, in detail, how Btu ratings are calculated and their significance. It has been learned from calculations made on the Btu Rating List and from</p>		

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laboratory testing at NARADCOM that steam (whenever it can be used directly for heating) is the least expensive type of energy, gas is second, and electricity is the most expensive.

The Btu ratings and costs of energy for operation that are provided in this report, together with other considerations, such as initial and maintenance costs, product acceptance, etc., can contribute to a more rational selection of equipment and systems.

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## EXECUTIVE PRECIS

1. The energy ratings of food service equipment, in terms of Btu (British Thermal Unit) consumption rate provided in this report, were based on the power rating of an item of equipment multiplied by the Btu conversion factor and by the on-time factor. This report explains in detail the source of equipment, Btu conversion factors, on-time factors, and how energy ratings in terms of Btu consumption are calculated.

2. Attached is an appendix listing the Btu ratings for equipment from the Master Equipment List, Enlisted Personnel Dining Facilities, published by the Troop Support Agency. The format and order of listing equipment follow the Master Equipment List. One exception is a group of items -- coffee urns, steam cookers, etc. -- that operate with various energy sources. The Btu ratings for gas, electricity, and steam for these items are listed on the same line for ready comparison.

3. Besides providing Btu ratings, this report also furnishes the costs of energy for operation. The costs of energy can be computed by multiplying the Btu ratings of equipment by the utility cost for gas, electricity or steam, in terms of Btu values. The average utility costs, based on Btu, are shown in Table 3, and a simple method for calculating the costs of energy is shown in Chapter IV, Btu Ratings and Costs of Energy.

4. From calculations made on the Btu Rating List and from laboratory testing conducted at NARADCOM, it has been learned that steam, whenever it can be used, is the least expensive type of energy, gas is second, and electricity is the most expensive. However, more usage tests are necessary to confirm these preliminary conclusions.

5. The use of Btu ratings and energy costs provided in this report, along with other considerations such as initial costs and product acceptance, can contribute to a more rational selection of equipment and/or systems.

## PREFACE

The main purpose for establishing an energy rating list for equipment is to provide information so that equipment energy consumption rates can be compared. The costs of energy for operation can be readily computed from energy consumption rates (equipment Btu ratings). This information, together with other considerations, can contribute to a meaningful means of equipment and system selection. This report provides not only a Btu Rating List, based on equipment listed in the Army's Master Equipment List, Enlisted Men's Dining Facilities, but also supplies basic information on how Btu ratings are calculated and their significance, so that readers can utilize the data in a most profitable way.

The authors would like to thank Mrs. Emily Prior of the Troop Support Agency for her initial suggestion for compiling equipment energy ratings and her continued enthusiasm in supporting such an effort. The authors would like to also thank Ms. Marianne Wilcox of Saga Corporation and Mr. Jack Dimmick of Economic Laboratory for their assistance. Thanks are extended to Dr. R.V. Decareau, Messrs. J. Nibi, G. Turk, and W. Roberts for their expert consultations and comments, and also to our secretary, Ms. Hilma Laakko, for her continued effort in typing and editing the manuscript.

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ENERGY RATING OF FOOD SERVICE EQUIPMENT USED  
IN ARMY DINING FACILITIES

I. Introduction

The Food Engineering Laboratory of the U.S. Army Natick Research and Development Command (NARADCOM) has been tasked by the Troop Support Agency (TSA) to provide energy ratings of food service equipment used in Army dining facilities. A booklet entitled, "Equipment Btu Rating List," compiled by the Saga Corporation, was furnished as an example.<sup>1</sup>

Commercial food service equipment, covered by Military, Federal or Commercial Specifications, is generally used in Military dining facilities. The primary purposes for establishing energy ratings for equipment, in terms of Btu ratings, are:

a. To determine energy consumption data of different equipment using the same energy source so that energy efficiencies, as well as costs, can be readily compared. A number of foods can be cooked in different equipment using the same energy source. For example, frozen, precooked, breaded chicken can be heated for serving in four different types of electrically operated equipment -- deep-fat fryers, braisers, deck ovens, and convection ovens.<sup>2</sup> The cost of

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<sup>1</sup> Saga Corporation. Equipment Btu Rating List. Saga Corporation, Menlo Park, CA.

<sup>2</sup> F. Romanelli. Evaluating Food Service Equipment for Energy Efficiency. Society for the Advancement of Food Service Research. P 61-67. Proceedings of the 32nd Conference, 1976.

energy for these four items of equipment can be obtained and compared by knowing their Btu ratings.

b. To compare alternative energy sources and their costs. A number of similar-type items of equipment could be operated by different energy sources -- electricity, gas or steam. For example, the steam used in a steam kettle could be generated either by electricity or gas; or it could be generated directly by a house boiler. Therefore, there is a choice of equipment, based on the energy source, which could affect the cost of energy.

c. To compare sizes and capacities of equipment in terms of energy usage and costs of energy. Reduction of energy consumption can be achieved by proper selection of size and capacity of equipment to match recipe requirement.

It is recognized that there are other factors besides energy that must be taken into consideration in the final selection of equipment or a system, such as initial costs, food product acceptance, labor, ease of operation, time required for cooking, etc. Energy efficiencies and costs of energy are important considerations in determining equipment and system selection.

## II. Literature Review

In general, to determine the energy usage of equipment, suitable meters are installed in the equipment for recording energy consumption. Romanelli reported a method of estimating energy consumption by the use of a stop watch to measure the on-time of the thermostat signal light.<sup>3</sup> The power rating of the equipment multiplied by the percentage of the on-time during one hour and by the total hours required equalled the estimated energy consumption. He found that the estimated energy consumption checked well with the actual readings from an installed meter.

Nibi also employed the stop watch method in establishing estimated energy consumption at Dining Facilities Building #8400 at Fort Lee, Virginia.<sup>4</sup> In Nibi's study, the on-time factor (which is the percentage of an hour in which equipment power is on during actual cooking) was observed and recorded. There is a list of on-time factors for commercial operations, but its source could not be readily identified. Saga, Inc. published an Equipment Btu Rating List in which the energy ratings, in terms of Btu, of many food service equipment items are listed.<sup>5</sup> It should be noted that there are a number of food service equipment items, such as ovens, fryers, and refrigerators, that operate intermittently using on-and-off cycles, and there are also other items of equipment, such as slicers, mixers, and pumps, etc., that run continuously when the power is turned on.

<sup>3</sup> See Reference 2.

<sup>4</sup> J.P. Nibi. Estimated Energy Comparison - Dining Facility, Bldg 8400, Fort Lee, VA. Memorandum for Record (unpublished), US Army Natick Research and Development Command, Natick, MA, 20 October 1977.

<sup>5</sup> See Reference 1.

### III. Methods and Procedures

#### A. Explanation of Btu Rating List

A Master Equipment List for Enlisted Personnel Dining Facilities<sup>6</sup> was used as a basic document for compiling a Btu Rating List (See Appendix). Our Btu Rating List follows the format and order of equipment listed in the Master Equipment List. The equipment identification numbers on the Btu Rating List are the same as on the Master Equipment List so that items of equipment can be readily identified. Both the Master Equipment List and the Btu Rating List are divided into seven functional areas: the Main Entree/Short Order Serving Line; Self Service Beverage, Salad and Dessert Area; Dishwashing Area; Kitchen Area; Pot and Pan Wash Area; Storage Area; and Dining Area.

Some items of equipment on the Master Equipment List, which do not use energy, such as pastry display cases, cash register stands, etc., are not included on the Btu Rating List. Items that have been omitted or replaced in the Master equipment List are not included in the Btu Rating List. In short, the Btu Rating List is a condensed version of the Master Equipment List dealing only with equipment that provides utility data. A thousand Btu is represented by "M" on the Btu Rating List (as listed by Saga).

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<sup>6</sup> US Army Troop Support Agency, Fort Lee, Va. Master Equipment List, Enlisted Personnel Dining Facilities, New Construction and Modernization Programs, 30 April 1978 Revision.

Similar items of equipment that can be operated with various energy sources are listed as a group on the Btu Rating List. Their Btu ratings, in terms of gas, electricity, and steam, are listed in one row for ready comparison. A typical example is the coffee urn (available in 6-gallon or 8-gallon capacities), which can use gas, electricity or steam for operation. All 6-gallon coffee urns are listed as a group with Btu ratings for gas, electricity, or steam operation in one row. The same applies to the 8-gallon coffee urn. With this grouping, it is possible to readily determine which energy source is most energy effective for equipment. Since energy costs per Btu vary with the type of energy source, energy effectiveness does not necessarily mean cost effectiveness. Calculations of energy costs will be discussed in the chapter on Btu Ratings and Costs of Energy.

#### B. Calculations of Btu Ratings

Without the benefit of installed meters, the Btu ratings of equipment are calculated as follows:

$$\begin{aligned} \text{Btu rating} = & (\text{Power rating of item, from name plate or specification}) \\ & \times (\text{appropriate Btu conversion factor}) \times (\text{On-time factor}) \end{aligned} \quad (1)$$

## 1. On-Time Factors

A number of food service equipment items, such as ovens, fryers, refrigerators, freezers, etc., follow an on-and-off cycle. The percentage of time in one hour that the power is on is called an "on-time factor." For examples of this factor, see Btu Rating List (Appendix). The on-time factors developed by these Laboratories, and used for calculating Btu ratings, are shown in Table 1.<sup>7</sup> For factors not available from Table 1, equipment manufacturers and knowledgeable personnel in equipment utilization were consulted to arrive at reasonable values.

There is another category of equipment that does not cycle on and off, such as slicers, pumps, etc. -- the power is off only when the equipment is turned off. An on-time factor of 1.00 is automatically assumed for this category of equipment.

## 2. Btu Conversion Factors

Generally, there are two types of equipment used in food service: one uses energy for heating or cooking foods, and for cold storage; the other uses energy for mechanical operations, such as slicing, mixing, pumping of water, etc. Therefore, there are two types of conversion factors to be recognized.

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<sup>7</sup> See Reference 4.

Table 1. On-Time Factors

<u>Items of Equipment</u>	<u>On-Time Factors</u>
1. Cabinet, food warmer	0.38
2. Counter, cold food	0.80
3. Table, hot food counter	0.80
4. Table, cold food	0.80
5. Cooker, steam	0.80 (Steam generator) 1.00 (Controls)
6. Dishwashing machine	0.80 (Booster and Heating elements) 1.00 (Pumps and motors)
7. Cabinet, frozen food	0.85
8. Fryer, deep fat	0.66 (Gas)
9. Griddle	0.75 (Gas)
10. Cabinet, ice cream	0.70
11. Machine, ice making	0.70
12. Kettle, steam	1.00
13. Meat Slicing	1.00
14. Mixing machine	1.00
15. Oven, convection	0.67
16. Range, hot top or grill top	1.00 (Range top) 0.70 (Oven)
17. Refrigerator, 25 ft <sup>3</sup>	0.70
18. Refrigerator, roll-in, 170 ft <sup>3</sup>	0.70
19. Toaster, electric	1.00
20. Urn, coffee	0.50 (6-gal cap)
21. Opener, can, electric	1.00
22. Dispenser, condiment	0.70
23. Dispenser, milk	0.70



Table 1. On-Time Factors (Cont.)

<u>Items of Equipment</u>	<u>On-Time Factors</u>
24. Dispenser, carbonated beverage	0.70
25. Microwave oven	1.00*

\*In general, microwave ovens do not use thermostatic controls; therefore there is no on-and-off cycling of power inputs. If operated at full or high power setting, the on-time factor is one. Some microwave ovens vary power by pulsing at a percentage of full power -- this percentage, as a decimal, would be the on-time factor.

a. Energy Used for Heating or Cooling

The generally accepted energy conversion factors are as follows:

Electricity: kWh x 3,413 Btu/kWh = Btu

Gas: cu ft x 1,000 Btu/cu ft = Btu

Steam: lb x 1,020 Btu/lb = Btu

Hot water: gal x 751 Btu/gal = Btu

b. Energy Used for Mechanical Operations

The energy conversion factor of an electric motor is usually calculated as HP x 0.746 kW/HP = kW. Motor efficiency has to be taken into consideration in calculating actual electric consumption. In order to compensate for the inefficiency of a motor, the following equation is used:

$$\text{kW} = \text{HP} \times \frac{0.746 \text{ kW/HP}}{\text{efficiency of motor}} \quad (2)$$

Motor efficiency depends on various factors, such as type, rpm, size, and phase of motor. To eliminate the necessity of finding various factors and looking into lengthy motor performance data tables,<sup>8</sup> motor efficiencies were grouped in Table 2 by averaging the efficiencies as listed in the data table. Therefore, the actual rate of consumption of electricity, in terms of kilowatt hours, can be calculated by using Equation (2). Then, by multiplying the kWh by its Btu equivalent of 3,413 the Btu rating of the equipment can be obtained.

<sup>8</sup> Baldor Electric Company. Standard Motor Performance Data and Connection Diagrams, Data Sections 5038504, 1 October 1971.

Table 2. Motor Efficiency Estimates

Motors		Efficiency Estimates
A. 1-phase	Below 1 HP	0.60
	1-5 HP	0.80
	Above 5 HP	0.85
B. 3-phase	Below 1 HP	0.75
	1-5 HP	0.85
	Above 5 HP	0.90

c. Energy Used for Heating and Mechanical Operations

There are a number of items of equipment that use one or two energy sources for heating and performing mechanical operations. For example, in a dishwashing machine, steam or electricity is used for heating elements and boosters of hot water, and electricity is also used for operating pumps and motors. In this case, the energies used for mechanical operations are calculated separately and then added together with heating energy to obtain the Btu ratings of the equipment.

#### IV. ENERGY RATINGS AND COSTS OF ENERGY

##### A. Comparison of Equipment Using the Same Energy Source

The average unit energy cost per cubic foot of gas, kWh of electricity or pound of steam is the same regardless of the type or capacity of equipment in which the energy is consumed. Therefore, for comparing items of equipment using the same energy source, such as gas, electricity or steam, the costs of energy are directly proportional to their Btu ratings.

##### B. Comparison of Equipment Using Various Energy Sources

For comparing items of equipment performing similar type functions but using different energy sources, the costs of energy depend not only on the energy effectiveness of the equipment but also on the kind of energy used. Table 3 shows the energy costs, per 10,000 Btu, of the three major energy sources: gas, electricity and steam. It can readily be seen that electricity costs 3 to 4 times more than natural gas or steam. Of course, the relative costs of energy may change in the future, and they are also subject to local variations.

Table 3. Utility Costs of Energy Sources

	Gas	Electricity	Steam (100 psig)
Average utility costs	3.0¢/10 cu ft = 3.0¢/10,000 Btu	4.0¢/kWh = 4.0¢/3413 Btu	3.3¢/10 lb = 3.3¢/10,200 Btu
Energy costs/10,000 Btu	3.0¢	11.7¢	3.2¢

Table 4 shows Btu ratings and operating costs per hour for several types of equipment. The equipment in Table 4 was selected from the Btu Rating List (Appendix), for illustrative purposes, to cover a broad range of equipment using two or three energy sources. For example, the Btu ratings of coffee urns operated by gas, electricity, or steam are 22.50 M, 20.48 M, and 15.30 M, respectively, on our Btu Rating List. These Btu values were multiplied by the energy costs listed in Table 3, giving relative costs of energy for coffee urns operated by three different energy sources. In our analysis, without exception, electricity is the most expensive energy source for heating, natural gas is second, and steam is the least expensive whenever it can be used directly.

Swift et al. conducted a laboratory study using five types of equipment for heating four types of frozen, precooked foods.<sup>9</sup> The average Btu required per pound of product, as well as the average cost of energy per pound of product, are shown in Table 5. The electric oven consumed the least amount of Btu per pound and had the highest cost for energy, the steam cooker consumed a moderate amount of Btu per pound and had the lowest cost for energy, and the gas oven consumed the highest amount of Btu per pound and had a moderate cost for energy.

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<sup>9</sup> J. Swift, S. F. Conca, and J. M. Tuomy. Efficiency and Cost Factors in Re-thermalizing Frozen Foods in Typical Dining Hall Equipment, Technical Report, NATICK/TR-78/014, US Army Natick Research and Development Command, January 1978.

Table 4. Energy Source Comparison: Btu Ratings and  
Costs of Energy per Hour

Equipment	Gas		Electricity		Steam	
	Btu Rating	Costs	Btu Rating	Costs	Btu Rating	Costs
1. Urn, coffee, twin, 6-gal cap.	22.50 M	6.8¢	20.48 M	23.9¢	15.30 M	4.9¢
2. Dishwashing machine, 50 racks per hour	*		65.79 M	77.0¢	88.68 M	28.4¢
3. Cooker, steam (steam genera- tor) 1-compartment	136.00 M	40.8¢	65.53 M	76.7¢	*	
4. Fryer, deep-fat, 30-lb pro- duction per hour cap.	39.60 M	11.9¢	13.52 M	15.8¢	*	
5. Kettle, steam jacketed, 20-gal. cap.**	75.00 M	22.5¢	40.96 M	47.9¢	25.50 M	8.2¢
6. Oven, revolving tray, 24-bun pan cap.	147.09 M	44.1¢	123.77 M	144.8¢	*	
7. Pan, frying and braising, 30-gal cap.	56.00 M	16.8¢	34.74 M	40.6¢	*	
8. Range, Type II, griddle top w/oven	112.20 M	33.7¢	61.10 M	71.5¢	*	

\* The energy source was not used for this specific equipment.

\*\* The utility rating of this item was based on heating the maximum working load of water from room temperature through a 130°F temperature rise in one hour.

Table 5. Average Energy Usage and Cost for Heating Precooked Frozen Foods with Five Types of Equipment

Equipment	Energy Usage (Btu/lb)	Energy Cost (\$/lb)
Conventional Gas Oven	1,068	0.31
Convection Gas Oven	743	0.27
Convection Electric Oven	435	0.65
Steam Cooker (5psig)	440	0.17
Steam Cooker (15 psig)	599	0.21

Hu et al. conducted studies for comparing electric revolving ovens vs. gas convection ovens for cooking five products in a Central Food Preparation Facility.<sup>10</sup> Their findings also showed that the gas convection oven used more Btu per serving of food than the electric revolving oven. However, due to the high cost of electricity, the actual cost of energy is higher for electricity than for gas.

<sup>10</sup> K.H. Hu, J. Swift, G.W. Hudson, R.A. Lampi, and J.M. Tuomy. Quantitative Analysis of Energy Usage in Central Food Preparation System at Fort Lee, VA. Technical Report, NATICK/TR-79/032, US Army Natick Research and Development Command, June 1979.

## V. CONCLUSIONS

1. The Btu Rating List attached to this report as an Appendix can be used as a reference for equipment energy efficiencies and for calculating costs of energy for operation. When comparing items of equipment using the same energy source, the costs of energy are directly proportional to the Btu ratings. When comparing items of equipment that can operate with different energy sources, the cost of energy can be calculated by multiplying Btu ratings by the utility cost in terms of Btu value. A simple method for calculating cost of energy is shown in Chapter IV of this report.

2. From calculations made on the Btu Rating List and from the laboratory testing conducted at NARADCOM, steam (whenever it can be used) offers\*the least expensive energy, gas the second, and electricity the most expensive. This information, together with other considerations, such as initial costs, maintenance costs, product acceptance, can contribute to a meaningful means of selection of equipment and/or system.

3. Since we are conducting more tests and gaining more experience, the Btu Rating List should be revised from time to time. Revisions of the Btu Rating List should be published periodically. Comments concerning Btu Rating List should be referred to the authors so that corrections and/or additions can be made in the future revisions.



## VI. REFERENCES

- Baldor Electric Company. Standard Motor Performance Data and Connection Diagrams. Data Sections 5038504, 1 October 1971.
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- US Army Troop Support Agency, Fort Lee, VA. Master Equipment List, Enlisted Personnel Dining Facilities, New Construction and Modernization Programs, 30 April 1978 Revision.

APPENDIX

BTU RATING LIST

MAIN ENTREE/SHORT ORDER SERVING LINE

Equip. Ident. Number	Item Description	Spec.		On-time Factor	Btu Rating		
		Military	Commercial		Gas	Electric	Steam
X-2	CABINET, DOUGH PROOFING, W/HUMIDIFIER		FED-W-C-20				
X-2-1	Elec. Heated, 18-Pan Cap., (18" x 26" Pans)			0.38*		1.30 M	
S-3	CABINET, FOOD WARMING, PASS-THROUGH, ELECTRIC		MIL-C-23880				
S-3-1	Type I, Size 6, 2 Sec., 8-Pan Cap., (18" x 26" x 1½")			0.38		2.60 M	
S-3-1	Type II, 3 Sec., (Top - Six 12" x 20" x 1", Center and Bottom - Eight 12" x 20" x 1" or Four 18" x 24" x 4½" Pans)			0.38		3.90 M	
S-4	CABINET, FOOD WARMING, REACH-IN, ELECTRIC		COMMERCIAL				
S-4-1	2 Sec., 3-Pan Cap., (18" x 26" x 1½")			0.38		2.60 M	
S-8	COLD FOOD COUNTER, MECHANICALLY REFRIGERATED, MOBILE SELF-CONTAINED, ELECTRIC		MIL-C-43300				
S-8-1	Size-3-Food-Storage-Pan Cap., Style b, Model A, Class 1, W/O Tray Rail, W/Bumpers And Casters			0.80		0.85 M	
S-8-2	Size-5-Food-Storage-Pan Cap., Style b, Model A, Class 1, W/O Tray Rail, W/Bumpers And Casters			0.80		0.85 M	
S-8-3	Size-4-Food-Storage-Pan Cap., Style b, Model A, Class 1, W/O Tray Rail, W/Bumpers And Casters			0.80		0.85 M	

Note:

\*Assumed on-time factor (same as Cabinet, Food Warmer).

Equip. Ident. Number	Item Description	Spec. Military Federal Commercial	On-time Factor	Btu Rating		
				Gas	Electric	Steam
B-4	COLD FOOD COUNTER, MECHANICALLY REFRIGERATED, MOBILE, SELF-CONTAINED, ELECTRIC	MIL-C-43300				
B-4-1	Size 3-Food-Storage-Pan Cap., Style c, Model A, Class 1, W/Protector Shelf, W/Bumpers, Casters And Tray Rail		0.80		0.85 M	
B-4-2	Size 4-Food-Storage-Pan Cap., Style c, Model A, Class 1, W/Protector Shelf, W/Bumpers, Casters And Tray Rail		0.80		0.85 M	
B-4-3	Size 5-Food-Storage-Pan Cap., Style c, Model A, Class 1, W/Protector Shelf, W/Bumpers, Casters And Tray Rail		0.80		0.85 M	
B-5	DISPENSER, BEVERAGE, MECHANICALLY REFRIGERATED, ELECTRIC	MIL-D-82035				
B-5-1	Type II, Style A, Size 4, 4-Gal. Cap., (Counter Model, Single Bowl), Juice		0.70		0.50 M	
B-5-2	Type II, Style A, Size 7, 8-Gal. Cap., (Counter Model, Single Bowl), Juice		0.70		0.50 M	
B-5 3	Type II, Style A, Size 13, 15-Gal. Cap., (Counter Model, Single Bowl), Juice		0.70		0.74 M	

Equip. Ident. Number	Item Description	Spec. Military Federal Commercial	On-time Factor	Btu Rating		
				Gas	Electric	Steam
S-17	GRIDDLE, SELF-HEATING, ELECTRIC	MIL-G-2338				
S-17-1	Type II, Size 2, (Used W/Stand Griddle, Style 2, (Castered Legs), REF: S-31-1, Item 228		0.75		40.96 M	
S-17-2	Type II, Size 2, (Used A/Stand Griddle, Style 1, (Plain Legs), REF: S-31-2, Item 228)		0.75		40.96 M	
S-17-3	Type II, Size 2, W/Stand Griddle, style 1, (Plain Legs), (S-31-2 Included)		0.75		40.96 M	
S-17-4	Type II, Size 2, W/Stand Griddle, Style 2, (Castered Legs), (S-31-1 Included)		0.75		40.96 M	
S-18	GRIDDLE, SELF-HEATING, GAS	MIL-G-2239				
S-18-2	Size 3, W/Quick Gas Disconnect, Used W/Stand Griddle, (Stationary), REF: S-32-2, Item 228, (Furnished to Operate on Natural Gas)		0.75	52.50 M		
S-18-3	Size 3, W/Stand Griddle, Style 1, (Stationary), W/Quick Gas Disconnect, (S-32-2 Included), (Furnished To Operate On Natural Gas)		0.75	52.50 M		
S-19	GRILL, FRANKFURTER, ROLLER TYPE, ELECTRIC	MIL-G-43817				
S-19-1	Size 1, Counter . del, (350 Franks Per Hour)		0.75		3.84 M	

Equip. Ident. Number	Item Description	Spec.		On-time Factor	Btu Rating		
		Military	Federal Commercial		Gas	Electric	Steam
S-21	OVEN, MICROWAVE, ELECTRIC	FED-S-O-1425					
S-21-1	Type II, Class 2			1.0		20.48 M	
S-21-2	Commercial, W/Cavity Light, Indicating Lights, Dual-Type Timer And Automatic-Manual Controls	IP/P DES 4-17		1.0		10.24 M	
S-22 and S-23	OVEN, PIZZA, ELECTRIC OR GAS	MIL-O-4384 (Electric)					
S-22-1 (Elec.)	Type I (Elec.), Size 1 (Gas); 1-Compartment, Counter Model	MIL-O-4382 (Gas)					
S-23-1 (Gas)				0.67	20.10 M	6.86 M	
S-25	REFRIGERATOR, MECHANICAL, COMMERCIAL SELF-CONTAINED, PASS-THROUGH, ELECTRIC	FED-AA-R-200					
S-25-1	Type H, Size 20 Cu. Ft. (Minimum), Style 2, W Legs			0.70		0.74 M	
S-25-2	Type H, Size 45 Cu. Ft. (Minimum), Style 2, W Legs			0.70		1.49 M	

Equip. Ident. Number	Item Description	Spec. Military Federal Commercial	On-time Factor	Btu Rating		
				Gas	Electric	Steam
S-26	REFRIGERATOR, MECHANICAL, COMMERCIAL, SELF-CONTAINED, REACH-IN, ELECTRIC	FED-AA-R-200				
S-26-1	Type H, Size 20 Cu. Ft. (Minimum), Style 1, W/Legs		0.70		0.74 M	
S-26-2	Type H, Size 45 Cu. Ft. (Minimum), Style 1, W/Legs		0.70		1.49 M	
S-26-3	Type H, Size 65 Cu. Ft. (Minimum), Style 1, W/Legs		0.70		2.23 M	
S-27	SANDWICH UNIT, REFRIGERATED, SELF-CONTAINED, ELECTRIC	MIL-S-43852				
S-27-1	Size 1, Style A, (6 Cu. Ft. Minimum Storage Cap.), W/Bumpers And Casters, (Minimum 2-Shelves), (9-1/6-Size 2 3/4" Deep Pans (Minimum), (Minimum 2-20" Adapter Bars), Without Tray Rail		0.70		0.74 M	
S-27-2	Size 2, Style A, (9 Cu. Ft. Minimum Storage Cap.), W/Bumpers And Casters, (Minimum 2-Shelves), (4-1/4-Size And 3-1/3-Size 2 3/4" Deep Pans (Minimum), (Minimum 2-20" Adapter Bars), Without Tray Rail		0.70		0.74 M	
S-27-3	Size 3, Style A, (12 Cu. Ft. Minimum Storage Cap.), W/Bumpers And Casters, (Minimum 2-Shelves), (4-1/4-Size And 6-1/3-Size 2 3/4" Deep Pans (Minimum), (Minimum 2-20" Adapter Bars), Without Tray Rail		0.70		0.74 M	

Equip. Ident. Number	Item Description	Spec. Military Federal Commercial	On-time Factor	Btu Rating		
				Gas	Electric	Steam
S-35 & S-36	TABLE, HOT FOOD, ELECTRIC OR GAS	MIL-T-82049 (Elec.)				
S-35-1 (Elec.)	Size 4 (Elec.); Size 4, Type B (Gas), (4-Food Storage Compartments), w/8" Work Shelf	MIL-T-43908 (Gas)	0.80	11.52 M	16.38 M	
S-36-4 (Gas)						
S-35-2 (Elec.)						
S-36-4 (Gas)	Size 5 (Elec.), Size 5, Type B (Gas); (5-Food Storage Compartments), w/8" Work Shelf		0.80	14.40 M	19.11 M	
S-35-3 (Elec.)	Size 6 (Elec.), Size 6, Type B (Gas); 6-Food Storage Compartments), w/8" Work Shelf		0.80	16.80 M	24.57 M	
S-36-6 (Gas)						



Equip. Ident. Number	Item Description	Spec.		On-time Factor	Btu Rating		
		Military	Federal Commercial		Gas	Electric	Steam
S-37	TOASTER, CONVEYOR, HEAVY-DUTY	FED-S-T-540					
S-37-1	Electric, Type 1, Size 3, 720 Slices Per Hour			1.0		13.65 M	
S-37-2	Gas, Type 11, Size 2, 543 Slices Per Hr, (W/Quick Gas Disconnect), (Furnished To Operate On Natural Gas)			1.0	32.00 M		
S-38	TOASTER, ELECTRIC, POP-UP, HEAVY-DUTY	FED-W-T-550					
S-38-1	Type HDI-200, 200 Slices Per Hr			1.0		8.87 M	
S-39	WAFFLE IRON	MIL-W-40110					
S-39-1	Electric, 2 Units			1.0*		6.83 M	
S-40	CABINET, FOOD WARMING, ELECTRICALLY HEATED, DRAWER TYPE	MIL-C-43609					
S-40-3	Type 11, Floor Model, W/(3-Drawers), Style L, Leg Mounted	No Elec. Power given				No Elec. Power given	

Note:

\*Assumed on-time factor.

Equip. Ident. Number	Item Description	Spec.		On-time Factor	Btu Rating		
		Military	Commercial		Gas	Electric	Steam
S-44	REFRIGERATOR, MECHANICAL, COMMERCIAL, SELF-CONTAINED, ROLL-IN, ELECTRIC	MIL-C-43427					
S-44-1	Type I, Class 1, Incl 1, Duty B, Style A, Model A, W/Racks, (W/Bumpers), (Single Cabinet), (W/Condensate Evaporator)			0.70		0.99 M	
S-44-2	Type I, Class 2, Incl 1, Duty B, Style A, Model A, W/Racks, (W/Bumpers), (Double Cabinet), (W/Condensate Evaporator)			0.70		1.49 M	
S-44-3	Type I, Class 3, Incl 1, Duty B, Style A, Model A, W/Racks, (W/Bumpers), (Triple Cabinet), (W/Condensate Evaporator)			0.70		2.23 M	
S-45	REFRIGERATOR, MECHANICAL, COMMERCIAL, SELF-CONTAINED, ROLL-THROUGH, ELECTRIC	MIL-C-43427					
S-45-1	Type I, Class 1, Incl 1, Duty B, Style A, Model B, W/Racks, (W/Bumpers), (Single Cabinet), (W/Condensate Evaporator)			0.70		0.99 M	
S-45-2	Type I, Class 2, Incl 1, Duty B, Style A, Model B, W/Racks, (W/Bumpers), (Double Cabinet), (W/Condensate Evaporator)			0.70		1.49 M	
S-45-3	Type I, Class 3, Incl 1, Duty B, Style A, Model B, W/Racks, (W/Bumpers), (Triple Cabinet), (W/Condensate Evaporator)			0.70		2.23 M	

SELF SERVICE BEVERAGE, SALAD AND DESSERT AREA

Equip. Ident. Number	Item Description	Spec. Military Federal Commercial	On-time Factor	Btu Rating		
				Gas	Electric	Steam
B-1	CABINET, ICE CREAM, FREEZER, WITH SEE-THRU-TOP, SELF-CONTAINED, ELECTRIC	MIL-C- 43936				
B-1-1	Size 1, 10 Cu. Ft. (Minimum), (Merchandiser), W/Tray Rail		0.70		1.49 M	
B-1-2	Size 2, 17 Cu. Ft. (Minimum) (Merchandiser), W/Tray Rail		0.70		2.28 M	
B-1-3	15-Gallon Capacity, (Levelator)		0.70		1.49 M	
B-1-4	25-Gallon Capacity, (Levelator)		0.70		1.49 M	
B-2	CHILLER, WATER, ELECTRIC, (USED W/B-17-1)	COMMERCIAL				
B-2-1	Air-Cooled, (Remote), 30-Gal. Per Hr. Water Supply, (Used W/B-17-1, Item 84)		0.70*		0.99 M	
B-3	COFFEE MAKER, ELECTRIC, AUTOMATIC	FED-W-C-500				
B-3-1	Type I, Style A, Class 1, Counter Mounted		0.50		10.24 M	

Note:

\*Assumed on-time factor.

Equip. Ident. Number	Item Description	Spec. Military Federal Commercial	On-time Factor	Btu Rating		
				Gas	Electric	Steam
B-4	COLD FOOD COUNTER, MECHANICALLY REFRIGERATED, MOBILE, SELF-CONTAINED, ELECTRIC	MIL-C-43300				
B-4-1	Size-3-Food-Storage-Pan Cap., Style c, Model A, Class 1, W/Protective Shelf, W/Bumpers, Casters And Tray Rail		0.80		0.85 M	
B-4-2	Size-4-Food-Storage-Pan Cap., Style c, Model A, Class 1, W/Protective Shelf, W/Bumpers, Casters And Tray Rail		0.80		0.85 M	
B-4-3	Size-5-Food-Storage-Pan Cap., Style c, Model A, Class 1, W/Protective Shelf, W/Bumpers, Casters And Tray Rail		0.80		0.85 M	
S-15	FOOD WARMER, INFRA-RED, ELECTRIC	MIL-F-43883				
S-15-1	Type 1, W/Base Shelf And Holding Pan And 2 Infra-Red Bulbs, Counter Model		1.0*		3.18 M	
K-16	FRYER, DEEP FAT, ( ELECTRIC), (HEAVY-DUTY)	FED-S-F-695				
K-16-1	Type 1, Size 1, Grade A, Style 2, 20-Pound Production (Minimum) Per Hr Cap. Counter Mounted		0.66		12.39 M	

Note: \_\_\_\_\_

\*Assumed on-time factor.

Equip. Ident. Number	Item Description	Spec. Military Federal Commercial	On-time Factor	Btu Rating		
				Gas	Electric	Steam
B-6	DISPENSER, BULK MILK, MECHANICALLY COOLED, ELEC., COUNTER OR STAND MOUNTED, (FRONT LOAD)	FED-CC-D-450				
B-6-1	Type I, Style A, Size 2-5, Class 1, Model A		0.70		0.50 M	
B-6-2	Type I, Style A, Size 3-5, Class 1, Model A		0.70		0.50 M	
B-7	DISPENSER, CARBONATED BEVERAGE, MECHANICALLY REFRIGERATED, (COUNTERTOP DISPENSING)					
B-7-1	4 Spigots (Dispensing Head), W/Drain Pan, 24-Volt Transformer, Remote System, Elec., (For Use W/B-18-1, Item 85; B-18-2, Item 86; B-18-3, Item 87)	MIL-D-43913	0.70		2.23 M	
B-7-2	Type II, Style A, Class 4, 4 Dispensing Heads, 400-Six Oz. Cups Per Hr., Counter Model, Pressure Syrup System	MIL-D-43738	0.70		No Elec. Power given	
B-11	DISPENSER, FREEZE DRIED COFFEE, ELECTRIC					
B-11-1	Counter Model, 500-600 Cups Per Hour	MIL-D-43807	0.50		2.39 M	
B-13	DISPENSER, HOT CHOCOLATE, ELECTRIC					
B-13-1	Counter Model, 50-8 Oz. Servings Per Charge	MIL-D-43715	0.50		1.71 M	

Equip. Ident. Number	Item Description	Spec. Military Federal Commercial	On-time Factor	Btu Rating		
				Gas	Electric	Steam
B-14	DISPENSER, ICE, SELF-LEVELING, MOBILE, ELECTRIC	MIL-D-43593				
B-14-1	Type II, Size 1, Manual Load, W/Automatic Dispensing Head, 165-Lb Capacity Bin, Left-Hand Tower, (Cubelet), W/Bumpers, Casters And Push Handle		0.70		0.99 M	
B-14-2	Type II, Size 1, Manual Load, W/Automatic Dispensing Head, 165-Lb. Cap. Bin, Right-Hand Tower, (Cubelet), W/Bumpers, Casters And Push handle.		0.70		0.99 M	
B-15	DISPENSER, ICED TEA, ELECTRIC					
B-15-a	Counter Model, Self-Contained, W/Drip Tray And Grill	MIL-D-43845	0.70*		2.39 M	
B-18	FACTORY, CARBONATED BEVERAGE, (USED W/B-7-1)					
B-18-1	Size 1, Five 6-Oz. Drinks Per Minute, 200 Per Hr, (Used W/B-7-1, Item 70)	MIL-D-43913	0.70		2.23 M	
B-18-2	Size 2, Eight 6-Oz. Drinks Per Minute, 480 Per Hr, (Used W/B-7-1, Item 70)		0.70		3.34 M	
B-18-3	Size 3, Fifteen 6-Oz. Drinks Per Minute, 900 Per Hr., (Used W/B-7-1, Item 70)		0.70		6.68 M	

Note:

\*Assumed on-time factor (same as Dispenser, Milk).

Equip. Ident. Number	Item Description	Spec.	On-time Factor	Btu Rating		
				Gas	Electric	Steam
B-19	ICE CREAM CABINET, MECHANICALLY REFRIGERATED, DISPENSING, MOBILE, SEE-THROUGH TOP, SELF-LEVELING	MIL-I-43389				
B-19-1	Size 1, 450 3-Oz. Cups/Slices, W/Casters		0.70		No Elec. Power given	
B-19-2	Size 2, 900 3-Oz. Cups/Slices, W/Casters		0.70		ditto	
B-20	ICE CREAM MAKERS: SHAKE MAKERS: AND COMBINATION ICE CREAM AND SHAKE MAKERS, SOFT SERVE, MOBILE, SELF CONTAINED, ELECTRIC	MIL-I-43709				
B-20-1	Type I, Size 1, Style A, Class 1, Counter Model, Soft Serve, Air-Cooled		0.70		4.46 M	
B-20-2	Type I, Size 3, Style C, Class 1, Caster Mounted, (Soft Serve), W/Twin Head And Wash Kit, Air Cooled		0.70		11.14 M	
B-20-3	Type I, Size 2, Style C, Class 1, Caster Mounted, (Soft Serve), W/Single Head And Wash Kit, Air-Cooled		0.70		7.80 M	
B-20-4	Type II, Size 3, Style C, Class 1 Caster Mounted, (Shake Maker), W/Twin Head And Wash Kit, Air-Cooled		0.70		8.91 M	
B-20-5	Type II, Size 2, Style C, Class 1, Caster Mounted, (Shake Maker), W/Single Head And Wash Kit, Air-Cooled		0.70		4.46 M	
B-20-6	Type III, Size 2, Style C, Class 1, Caster Mounted, (Combination Ice Cream And Shake Maker), W/Twin Head And Wash Kit, Refrigerated Syrup Rail, 2 Pumps, 1 Ladle, Spinner, Air-Cooled		0.70		12.25 M	

Equip. Ident. Number	Item Description	Spec.		On-time Factor	Btu Rating		
		Military	Federal Commercial		Gas	Electric	Steam
B-20-8	Type III, Size 2, Style B, Class 1, Floor Mounted, (W/Legs). (Combination Ice Cream And Shake Maker), W/Twin Head And Refrigerated Syrup Rail, 2 Pumps, 1 Ladle, Spinner, Air-Cooled			0.70		12.25 M	
B-21	ICE MAKER-DISPENSER, WITH WATER DISPENSER ATTACHMENT (SELF-CONTAINED, AIR-COOLED)		MIL-I-43682				
B-21-1	Type I, Grade A, Size 1, style 1, 525 Pound Floor Style			0.70		2.23 M	
B-21-2	Type I, Grade 1, Size 2, Style 1, 200 Pound Floor Style			0.70		1.98 M	
B-21 3	Type I, Grade A, Size 2, Style 2, 200 Pound Counter Style			0.70		2.23 M	
B-22	ICE MAKING MACHINE, CUBE, AUTOMATIC, MECHANICALLY REFRIGERATED, SELF-CONTAINED, ELECTRIC		MIL-I-11867				
B-22-1	150-Pound Cap., On 300-Pound Storage Bin, Air-Cooled, (NOTE: An Exception To The Specification REF: Type II, Size 1, Grade B)			0.70		2.23 M	
B 23-1	Type II, Size 1, Grade B, 400 Pound Capacity, On 500 Pound Storage Bin, Air-Cooled			0.70		1.23 M	
2-23-2	Type II, Size 7, Grade B, 800 Pound Capacity, On 750 Pound Storage Bin, Air-Cooled			0.70		4.46 M	
B 23-3	Type II, Size 8, Grade B, 1200 Pound Capacity, On 1000 Pound Storage Bin, Air-Cooled			0.70		6.68 M	



Equip. Ident. Number	Item Description	Spec.	On-time Factor	Btu Rating		
				Gas	Electric	Steam
B-24	MIXER, FLUID, ELECTRIC	MIL-M-40600	1.00		2.12 M	
B-24-1	Type 3, Style 1, 3-Speed, Three 34 Oz. Mixing Containers					
S-26	REFRIGERATOR, MECHANICAL, COMMERCIAL, SELF-CONTAINED REACH-IN, ELECTRIC	FED-AA-R-200	0.70		1.49 M	
S-26-2	Type H, Size 45 Cu. Ft. (Minimum), Style 1, W/Legs					
S-44	REFRIGERATOR, MECHANICAL, COMMERCIAL, SELF-CONTAINED, ROLL-IN, ELECTRIC	MIL-C-43427	0.70		1.49 M	
S-44-2	Type I, Class 2, Incl 1, Duty B, Style A, Model A, W/Racks, (W/Bumpers) (Double Cabinet), (W/Condensate Evaporator)					
B-28	URN, COFFEE, TWIN, AUTOMATIC, COUNTER MOUNTED	MIL-U-42363	0.50	22.50 M	20.48	15.30 M
B-28-1 (Elec.)	Model B, (Twin), Style 3, Type I (Elec.), Type II (Steam), Type III (Gas), 6-Gallon Cap., (3-Gallon Each Compartment)					
B-28-2 (Steam)						
B-28-3 (Gas)						

Equip. Ident. Number	Item Description	Spec. Military Federal Commercial	On-time Factor	Btu Rating		
				Gas	Electric	Steam
B-28-4 (Elec.) B-28-5 (Steam) B-28-6 (Gas)	Model B, (Twin), Style 3, Size 4, Type I (Elec.), Type II (Steam), Type III (Gas), 8-Gallon Cap., (4-Gallon Each Compartment)		0.67	30.15 M	27.44 M	20.50 M

# DISHWASHING AREA

Equip. Ident. Number	Item Description	Spec. Military Federal Commercial	On-time Factor	Btu Rating		
				Gas	Electric	Steam
D-1	CONVEYOR, ENDLESS, (AS PER DRAWING), ELECTRIC	BUILT TO ORDER				
D-1-1	Straight, Soiled Dish, (Used W/D-5-3, -2 And D-6-3, -4, -1, -2, Items 121 And 122)		1.00*		1.06 M	
D-3	DISHWASHING MACHINES, COMMERCIAL, (RACK STATIONARY), 20" x 20" RACKS	FED-00-D-431				
D-3-1 (Steam)	Style I (Steam), Style II (Elec) Size 50-20, 50 Racks Per Hour (Straight Feed)		0.80 (booster)		65.79 M	88.68 M
D-3-3 (Elec.)			1.00 (pumps & motors)			
D-3-2 (Steam)	Style I (Steam), Style II (Elec.) Size 50-20, 50 Racks Per Hour (Corner Feed)		ditto		65.79 M	88.68 M
D-3-4 (Elec.)						

Note:  
\*Assumed on-time factor.

Equip. Ident. Number	Item Description	Spec. Military Federal Commercial	On-time Factor	Btu Rating		
				Gas	Electric	Steam
D-4	DISHWASHING MACHINES, DOUBLE TANK, COMMERCIAL, (20" x 20" RACKS), (RACK CONVEYOR), WITH POWER PREWASH, EXHAUST VENTS, AND DETERGENT CONCENTRATION METER, WITHOUT HEATERS/BLOWERS	FED-00-D- 1390				
D-4-1 (Steam) D-4-3 (Elec.)	Style I, Class I (Steam), Style II (Elec.), Size 165-20, 165 Racks Per Hour, Right to Left Feed		0.80 (booster) 1.00 (pumps & motors)		279.56 M	285.34 M
D-4-2 (Steam) D-4-4 (Elec.)	Style I, Class I (Steam), Style II (Elec.), Size 165-20, 165 Racks Per Hour, Left to Right Feed		ditto		279.56 M	285.34 M
D-4-5 (Steam) D-4-7 (Elec.)	Style I, Class I (Steam), Style II (Elec.), Size 275-20, 275 Racks Per Hour, Right to Left Feed		ditto		282.55 M	312.82 M
D-4-6 (Steam) D-4-8 (Elec.)	Style I, Class I (Steam), Style II (Elec.) Size 275-20, 275 Rack Per Hour, Left to Right Feed		"		282.55 M	312.82 M

Equip. Ident. Number	Item Description	Spec. Military Federal Commercial	On-time Factor	Btu Rating		
				Gas	Electric	Steam
D-5	DISHWASHING MACHINES, COMMERCIAL, (RACKLESS CONVEYOR), MULTIPLE TANK, ENDLESS CONVEYOR, WITH 4 FT LOAD, 8 FT UNLOAD, TEMPERING VALVE IN PREWASH, BOOSTER HEATER AND DETERGENT CONCENTRATION METER, WITHOUT HEATERS/ BLOWERS	FED-00-D-1388				
D-5-1 (Steam)	Style 1 (Steam), Style 2 (Elec.), Type III, Group 3, Size 7500, 7500 Dishes Per Hr, Right to Left Feed		0.80 (booster), 1.00 (pumps & motors)		321.81 M	357.44 M
D-5-3 (Elec.)			ditto		321.81 M	357.44 M
D-5-2 (Steam)	Style 1 (Steam), Style 2 (Elec.), Type III, Group 3, Size 7500, 7500 Dishes Per Hr, Left to Right Feed					
D-5-4 (E-c.)						
D-6	DISHWASHING MACHINES, COMMERCIAL, (RACKLESS CONVEYOR), MULTIPLE TANK, ELEC., ENDLESS CONVEYOR, WITH 4 FT LOAD, 10 FT UNLOAD, TEMPERING VALVE IN PREWASH, BOOSTER HEATER AND DETERGENT CONCENTRATION METER, WITHOUT HEATERS/BLOWERS	FED-00-D-1388				
D-6-1 (Steam)	Style 1 (Steam), Style 2 (Elec.), Type III, Group 3, Size 13,000, 13,000 Dishes Per Hr, Right to Left Feed		0.80 (booster), 1.00 (pumps & motors)		356.10 M	358.93 M
D-6-3 (Elec.)			ditto		356.10 M	358.93 M
D-6-2 (Steam)	Style 1 (Steam), Style 1 (Elec.), Type III, Group 3, Size 13,000, 13,000 Dishes Per Hr, Left to Right Feed					
D-6-4 (Elec.)						

Equip. Ident. Number	Item Description	Spec.		On-time Factor	Btu Rating		
		Military	Commercial		Gas	Electric	Steam
D-9	GARBAGE DISPOSAL MACHINE, ELECTRIC	MIL-G-15840		1.00*	25.60 M		
D-9-2	7-1/2 HP Control Center, Circuit Breaker, Automatic Reversing, Positive Flush, 6-8" Diameter Throat Cut-Out			1.00	11.95 M		
D-9-3	Type I, Class 1, 3-1/2 HP, Controls Not Included			1.00	17.07 M		
D-9-4	Type I, Class 1, 5 HP, Controls Not Included						
D-19	CLEANING AND SANITIZING MACHINE, SPRAYING, HIGH PRESSURE, ELECTRIC	MIL-C-43949		1.00*	3.18 M		
D-19-1	Type I, Portable, 500 PSI At 3 GPM, W/Spray And Nozzles, 25 Ft High Pressure Hose (Quick Disconnect), 25 Ft 3/4 Inch Water Hose And 20 Ft Elec. Cord (Minimum), (Dimensions Cited Are Without Handle)						
D-19-2	Type II, Wall Mounted, 800 PSI At 4 GPM, W/Spray And Nozzles, 25 Ft High Pressure Hose (Quick Disconnect), 6 Ft 3/4 Inch Water Hose, 8 Ft Elec. Cord (Minimum), And Mounting Brackets, (Dimensions Cited Without Mounting Brackets)			1.00	5.99 M		

Note:  
\* Assumed on-time factor.

Equip. Ident. Number	Item Description	Spec.	On-time Factor	Btu Rating		
		Military Federal Commercial		Gas	Electric	Steam
D-20	PUMP UNIT RECIRCULATING (SILVER PREWASH), ELECTRIC					
D-20-1	Electric, With Motor Capable of Moving 80 GPM Through A Figure Eight Pattern, Equipped W/Mountings For Attachment To Side Walls of Silver Soak Sink	COMMERCIAL	1.00*		1.41 M	

Note:

\* Assumed on-time factor.

KITCHEN AREA

Equip. Ident. Number	Item Description	Spec. Military Federal Commercial	On-time Factor	Btu Rating		
				Gas	Electric	Steam
K-1 K-1-1	BROILER, CONVEYOR, (NATURAL GAS) Gas, W/Quick Gas Disconnect, (Used W/K-41-1, Item 188)	MIL-B-43933	1.00	208.00 M		
K-2 K-2-1	CABINET, DOUGH PROOFING, W/HUMIDIFIER Electrically Heated, 18-Fan Cap., (18" x 26" Pans)	FED-W-C-20	0.38		1.30 M	
K-4 K-4-3 (Gas) K-4-4 (Elec.)	COOKER, STEAM, VEGETABLE, (SPEED) Steam Generator, Type II (Gas), Type III (Elec.), Size 1-3F, 1-Compartment, style F, (Except 1-Compartment), Cabinet Mounted	FED-S-C-1474	0.80	136.00 M	65.53 M	



Equip. Ident. Number	Item Description	Spec. Military Federal Commercial	On-time Factor	Btu Rating		
				Gas	Electric	Steam
K-5	COOKER, STEAM, VERTICAL, (STEAM GENERATING)	MIL-C-2354				
K-5-1 (Steam)	Type I (Steam Heated), Type II (Gas Heated)		0.80	96.00 M	65.53 M	12.24 M
K-5-2 (Gas)	Type II (Elec. Heated), Size 1, Class 2, 2-Compartment, Automatic, Leg Mounted					
K-5-3 (Elec.)						
K-5-4 (Gas)	Type II (Gas Heated), Type III (Elec. Heated), Style 1, Class 1, 2-Compartment, Non-Automatic, Leg Mounted		0.80	96.00M	65.53 M	
K-5-5 (Elec.)						
K-5-6 (Gas)	Type II (Gas Heated), Type III (Elec. Heated), Style 1, Size 2, Class 1, 3-Compartment, Non- Automatic, Leg Mounted		0.80	112.00 M	98.29 M	
K-5-7 (Elec.)						
K-9	DOUGH DIVIDING AND ROUNING MACHINE, ROLL	MIL-D-3886				
K-9-1	Type II, Elec., Semi-Automatic, 8,000 Pieces Per Hr, Floor Mounted		1.00		2.12 M	
K-10	DOUGH ROLLING MACHINE, PIE	MIL-D-2467				
K-10-1	Style A, Elec., Stand Mounted, (9" Pie crusts)		1.00		3.18 M	

Equip. Ident. Number	Item Description	Spec. Military Federal Commercial	On-time Factor	Btu Rating		
				Gas	Electric	Steam
K-12	FILTER, COOKING GREASE	MIL-F-2296	1.00*		4.82 M	
K-12-2	Type I, Size 1, Low Type, (50-Pound Minimum Fat Cap.), Elec., W/Compound And Filter, W/Handle, (Pumped Drain), W/Casters					
K-13	FOOD CUTTING MACHINE	MIL-F-43402	1.00		1.13 M	
K-13-2	Type I, Size 1, Bench Mounted, Bowl Cap. of 5 Lbs of Fresh Meat, (W/Optional Attachments, Without Table)		1.00		3.00 M	
K-13-3	Type I, Size 2, Bench Mounted, Bowl Cap. of 14-15 Lbs of Fresh Meat, (W/Optional Attachments, Without Table)		1.00		1.13 M	
K-13-4	Type I, Size 1, Bench Mounted, Bowl Cap. of 5 Lbs of Fresh Meat (Without Optional Attachments, Without Table)		1.00		3.00 M	
K-13-5	Type I, Size 2, Bench Mounted, Bowl Cap. of 14-15 Lbs of Fresh Meat, (Without Optional Attachments, Without Table)					

Note:

\* Assumed on-time factor.

Equip. Ident. Number	Item Description	Spec.		On-time Factor	Btu Rating		
		Military Federal Commercial			Gas	Electric	Steam
K-14	FOOD CUTTING AND MIXING MACHINE, VERTICAL, HIGH SPEED, ELECTRIC	MIL-F-43569					
K-14-1	Type II, Size 1, Tilting, Floor Model, 25-Qt Bowl Minimum Cap.			1.00		16.47 M	
K-14-2	Type II, Size 2, Tilting, Floor Model, 40-Qt Bowl Minimum Cap.			1.00		29.95 M	
K-15	FREEZER BASE, WITH WORK TOP, ELEC., (FROZEN FOOD CABINET, MECHANICALLY REFRIGERATED)	MIL-F-43934					
K-15-1	2-Door, Self-Contained, W/Adjustable Legs, 14 Cu. Ft. (Minimum) Cap., Air-Cooled, Stainless Steel Work Top, W/6-Inch Backsplash, 2 Wire Shelves Per Door Opening			0.85		1.20 M	
K-16 & K-17	FRYER, DEEP FAT (ELECTRIC), HEAVY DUTY)	FED-S-F-695 (Electric)					
K-16-2 (Elec.)	Elec., Type II, Size 2, Model L, Grade B, Style 2, Class 1; Gas, Type I, Size 1, Model A, Grade B, Class 1, 30-Lb Production (Minimum) Per Hr Cap., Floor Mounted	FED-S-F-700 (Gas)					
K-17-1 (Gas)				0.66	39.60 M	13.52 M	
K-16-5	Elec., Type II or Type III, Size 3, Grade A,, Style 2, Class 1; Gas, Type I, Size 2, Model A, Grade A, Class 1, 60-Lb Production (Minimum) Per Hr Cap.						
K-16-7 (Elec.)							
K-17-6 (Gas)				0.66	79.20 M	28.16 M	

Equip. Ident. Number	Item Description	Spec. Military Federal Commercial	On-time Factor	Btu Rating		
				Gas	Electric	Steam
K-16-4 (Elec.) K-17-2 (Gas)	Elec. Type II, Size 4, Model C, Grade A, Style 2, Class 1; Gas, Type I, Size 3, Model A, Grade B, Class 1; 90-Lb Production (Minimum) Per Hr Cap		0.66	89.10 M	45.05 M	
K-16-6 (Elec.) K-17-7 (Gas)	Elec., Type II or Type III, Size 5, Grade A, Style 2, Class 1; Gas, Type I, Size 4, Model A, Grade A, Class 1; 125-Lb Production (Minimum) Per Hr Cap.		0.66	108.90 M	49.56 M	
K-20  K 20-1 (Elec.) K-22-1 (Gas) K-23-1 K-23-5 (Steam)	KETTLE, STEAM JACKETED, (STAINLESS STEEL). ELECTRICALLY HEATED  Type I, Floor Model, Leg Mounted (Elec.), Leg Mounted (Gas); Type I, Style 4 or 9, Class B (Steam); 20-Gallons Cap., W/3" Tangent Drain, Hinged Cover and Swing Spout	MIL-K-43359 (Elec.)  MIL-K-43943 FED-PR-K-193 (Gas)  FED-PR-K-195 (Steam)	  1.00*	  75.00 M	  40.96 M	  25.50 M
K-20-2 (Elec.) K-22-2 (Gas) K-23-2 K-23-6 (Steam)	Type I, Floor Model, Leg Mounted (Elec.); Leg Mounted (Gas); Type I, Style 4 or 9, Class B (Steam); 40-Gallon Cap., W/3" Tangent Drain, Hinged Cover and swing Spout		1.00	110.00 M	81.91 M	51.00 M

**Note:**

\*The utility rating for Kettle, Steam Jacketed was based on the supplier's data for heating maximum working load of water from room temperature through a 130°F temperature rise.

Equip. Ident. Number	Item Description	Spec. Military Federal Commercial	On-time Factor	Btu Rating		
				Gas	Electric	Steam
K-20-3 (Elec.) K-22-3 (Gas) K-23-3 K-23-7 (Steam)	Type I, Floor Model, Leg Mounted (Elec.); Leg Mounted (Gas); Type I, Style 4 or 9, Class B (Steam); 60-Gallon Cap., W/3" Tangent Drain, Hinged Cover and Swing Spout		1.00	135.00 M	122.87 M	76.50 M
K-20-4 (Elec.) K-21-1 (Gas) K-23-4 (Steam)	Type II, Style B (Elec.); (Gas); Type I, Style 5, Class B (Steam); Two 5-Gallon		1.00	170.00 M	81.91 M	35.70 M
K-24 K-24-1 K-24-2	MEAT SLICING MACHINE, BENCH MOUNTED, ELECTRIC Type II, Class 1, Style 1 Model 1, Automatic, 80 Slices Per Minute, Size 1 Type II, Class 2, Style 1, Model 1, Semi-Automatic, 40 Slices Per Minute, Size 2	FED-00-M-280	1.00 1.00		1.41 M 1.06 M	
K-25 K-25 1 K-25-2	MIXING MACHINE, FOOD, ELECTRIC, (VERTICAL, COMMERCIAL TYPE) Model I, Size 20, Style 1, 20-Qt Bowl Cap., Bench Mounted, (Used W/K-42-1, Item 189) Model II, Size 30, Style 1, Floor Type, 30-Qt Bowl Cap.		1.00 1.00		2.12 M 3.18 M	

Note:

\*This utility also supplies power to other equipment.

Equip. Ident. Number	Item Description	Spec. Military Federal Commercial	On-time Factor	Btu Rating		
				Gas	Electric	Steam
K-25-3	Model II Size 60, Style 1, Floor Type, 60-Qt Bowl Cap., W/Dolly And Accessories		1.00		4.49 M	
K-24-4	Model II, Size 80, Style 1, Floor Type, 80-Qt Bowl Cap, W/Dolly And Accessories		1.00		5.99 M	
K-26	OPENER, CAN, HEAVY-DUTY, ELECTRIC	MIL-O-40155	1.00		No Elec. Power Rating given	
K-26-1	Type 1. Portable, W/Lid Lifter					
K-27	OVEN, BAKING AND ROASTING, DECK, OIL	MIL-O-2478				
K-27-1	2-Compartment, Indirectly Heated, (Fractional HP For Oil Pump And Fan Motor)		No Oil Rating given			
K-28	OVEN, BAKING AND ROASTING, FORCED CONVECTION, ELECTRIC	MIL-O-43633				
K-28-1	Type II, Model B, Size 1, 2-Speed Blower, 2-Compartments		0.67		90.24 M	

Equip. Ident. Number	Item Description	Spec. Military Federal Commercial	On-time Factor	Btu Rating		
				Gas	Electric	Steam
K-29 K-29-1	OVEN, BAKING AND ROASTING, FORCED CONVECTION, GAS Type II, Style 1, Model B, 2-Speed Blower, 2-Compartments, (Furnished To Operate On Natural Gas)	MIL-O-43679	0.67	154.10 M		
S-21 S-21-1	OVEN, MICROWAVE, ELECTRIC Type II, Class 2	FED-S-O-1425	0.50	10.24 M		
K-30 K-30-1 (Elec.) K-30-2 (Gas) K-30-3	OVEN, REVOLVING TRAY, BAKING AND ROASTING, COMPACT Electric, Type I; Gas, Type II, Style B, Size 7, (18" x 26" Pan)  Oil, Type II, Style B, Size 35 (18" x 26" Pan)	FED-S-O-865  COMMERCIAL	0.67  No Oil Rating given	67.59 M <sup>2</sup>	114.62 M	
K-31 K-31-1 (Gas) K-31-2 (Elec.) K-31-3	OVEN, REVOLVING TRAY, BAKING AND ROASTING, COMPACT Gas, Type I, DHS, Class 1, Model A; Elec., Type I, DHS, Class 2, Style A, Drive Machinery On Left Side, Size 24, 24-Bun Pan Cap. (18" x 26" Pan)  Oil Fired, Type II, Style B, Size 35, 35-Bun Pan Cap. (18" x 26" Pan)	FED-S-O-865	0.67  No Oil Rating given	147.09 M	123.77 M	

**Note:**

\*The gas utilities rating for this equipment seems to be too low on the Master Equipment List when compared with the electric utility ratings for the same capacity ovens. This results in a lower Btu rating for gas than for electric consumption.

Equip. Ident. Number	Item Description	Spec.		On-time Factor	Btu Rating		
		Military	Commercial		Gas	Electric	Steam
K-25-3	Model II Size 60, Style 1, Floor Type, 60-Qt Bowl Cap., W/Dolly And Accessories			1.00		4,49 M	
K-24-4	Model II, Size 80, Style 1, Floor Type, 80-Qt Bowl Cap, W/Dolly And Accessories			1.00		5.99 M	
K-26	OPENER, CAN, HEAVY-DUTY, ELECTRIC						
K-26-1	Type I. Portable, W/Lid Lifter	MIL-O-40155		1.00		No Elec. Power Rating given	
K-27	OVEN, BAKING AND ROASTING, DECK, OIL						
K-27-1	2-Compartment, Indirectly Heated, (Fractional HP For Oil Pump And Fan Motor)	MIL-O-2478		No Oil Rating given			
K-28	OVEN, BAKING AND ROASTING, FORCED CONVECTION, ELECTRIC						
K-28-1	Type II, Model B, Size 1, 2-Speed Blower, 2-Compartments	MIL-O-43633		0.67		90.24 M	



Equip. Ident. Number	Item Description	Spec. Military Federal Commercial	On-time Factor	Btu Rating		
				Gas	Electric	Steam
K-32	PAN, FRYING AND BRAISING, ELECTRIC, TILTING TYPE	MIL-P-23694 (Elec.)				
K-32-2 (Elec.)	Elec. or Gas, Type II, Class B, Style A, Size 2, W/Enclosed Tilting Mechanism, (24" x 40" x 7" Pan, 30-Gallon Cap.)	MIL-P-28603 (Gas)	0.80*	56.00 M	34.74 M	
K-32-3 (Elec.)	Elec. or Gas, Type II, Class B, Style A, Size 5, W/Enclosed Tilting Mechanism (24" x 30" x 7" Pan, 23-Gallon Cap.)		0.80	35.20 M	27.55 M	
K-33-3 (Gas)						
K-36 & K-37	RANGE, ELECTRIC, COMMERCIAL	MIL-R-11295 (Elec.)				
K-36-2 (Elec.)	Type II, Style 2, Grade A, Griddle Top, W/Oven (Elec.); Type I, Style II, Grade A, Fry Top, W/Oven (Gas)	MIL-R-2357 (Gas)	0.85**	112.20 M	61.10 M	
K-37-1 (Gas)						
K-36-3 (Elec.)	Type III, Style 2, Grade B, Hot Top, W/Oven (Elec.); Type II, Style 2, Grade B, Hot Top, W/Oven (Gas)		0.85	103.70 M	61.10 M	
K-37-3 (Gas)						
K-36-4 (Elec.)	Type III, Style 2, Grade A, Griddle and Hot Top, W/Oven (Elec.); Type II, Style 2, Grade A, Hot Top W/Oven (Gas)		0.85	103.70 M	61.10 M	
K-37-2 (Gas)						

**Notes:**

\*Assumed on-time factor.

\*\*On-time factor for range is average of factors for range top and oven.

Equip. Ident. Number	Item Description	Spec.		On-time Factor	Btu Rating		
		Military	Federal Commercial		Gas	Electric	Steam
K-36-6 (Elec.) K-37-5 (Gas)	Type II, Style 2, Grade B, Griddle Top, W/Oven (Elec.); Type I, Style 2, Grade B, Fry Top, W/Oven (Gas)			0.85	137.70 M	61.10 M	
K-37-4	Type III, Style 2, Grade B, Open Top, 4-Burners, W/Oven			0.85	137.70 M		
K-37-6	Type III, Style 2, Grade A, Open Top, 4-Burners, W/Oven			0.85	137.70 M		
K-38	RANGE, OIL BURNING, HEAVY-DUTY, MECHANICAL TYPE BURNER, (NO. 2 OR HEAVIER FUEL OIL)	MIL-R-11038					
K-38-1	Style 1, Right Hand Fire Box, 1 Burner, W/Griddle Top - Hot Top And Oven			No Oil Rating given			
K-38 2	Style 2, Left Hand Fire Box, 1 Burner, W/Griddle Top - Hot Top And Oven			ditto			
K-46	VEGETABLE CUTTING AND SLICING MACHINE, WITH TABLE, MOBILE, ELECTRIC	FED-00-V-205					
K-46-1	Type II, Class 1, (Single Purpose), W/Casters, (No Attachments Required)			1.00		1.41 M	

Equip. Ident. Number	Item Description	Spec. Military Federal Commercial	On-time Factor	Ptu Rating		
				Gas	Electric	Steam
K-47	VEGETABLE CUTTING AND SLICING MACHINE, WITH TABLE, MOBILE, ELECTRIC	FED-00-V-205				
K-47-1	Type 1, Style B, Class 1, (Multi-Purpose), W/Optional Attachments, W/Casters, (Shredder And Grater)		1.00		1.41 M	
K-47-2	Type 1, Style A, Class 1, (Multi-Purpose), W/Different Attachment For Each Type Cut		1.00		1.41 M	
K-48	VEGETABLE PEELING MACHINE, ELECTRIC	FED-00-V-185				
K-48-1	Style 2, Size B Complete W/Supporting Base And Peel Trap, Stainless Steel Cylinder, 30 Lbs Cap.		1.00		3.18 M	
K-48 2	Style 2, Size C, Complete W/Supporting Base And Peel Trap, Stainless Steel Cylinder, 50 Lbs Cap.		1.00		3.18 M	
K 49	VEGETABLE PEELING MACHINE, ELECTRIC	FED-00-V-185				
K-49-1	Style 2, Size B, Complete With Disposer, Waste And Disposer Stand Base, Stainless Steel Base And Cylinder, 30 Lbs Cap.		1.00		3.98 M	

Equip. Ident. Number	Item Description	Spec. Military Federal Commercial	On-time Factor	Btu Rating		
				Gas	Electric	Steam
K-49-2	Style 2, Size C, Complete With Disposer, Waste and Disposer Stand Base, Stainless Steel Base And Cylinder, 50 Lbs. Cap.		1.00		3.98 M	
K-51	VEGETABLE CUTTING AND SLICING MACHINE, WITHOUT TABLE ELECTRIC, (U-ED W/S-34-6)	FED-00-V-205				
X-51-1	Type I, Style B, Class 2, (Multi-Purpose), W/Optional Attachment), (Shredder And Grater)		1.00		1.41 M	
K-51-2	Type II, Class 2, (Single Purpose), (No Attachments Required)		1.00		1.41 M	
K-51-3	Type I, Style A, Class 2, (Multi-Purpose), W/Different Attachments For Each Type Cut		1.00		1.41 M	

POT AND PAN WASH AREA

Equip. Ident. Number	Item Description	Spec. Military Federal Commercial	On-time Factor	Btu Rating		
				Gas	Electric	Steam
D-9	GARBAGE DISPOSAL MACHINE, ELECTRIC	COMMERCIAL				
D-9-1	5HP Control Center, Circuit Breaker, Automatic Reversing, Positive Flush, 6-8 Dia. Throat Cut-Out		1.00*		14.98 M	
PW-1	HEATER, HOT WATER BOOSTER, ELECTRIC, SINK, SANITIZING	MIL-H-43895				
PW-1-1	9KW, 180°F. Hot Water, For Pot And Pan Rinse Sink (Used W/PW-4-1, PW-4-2, Items 203 And 204)		0.80		21.56 M	
PW-2	HEATER, HOT WATER BOOSTER, ELECTRIC	COMMERCIAL				
PW-2-1	15KW, 180°F. Hot Water, For Pot And Pan Rinse Sink, (Used W/PW-4-1, PW-4-2, Items 203 And 204)	FED-W-H-196)	0.80		35.94 M	
PW-6	WASHING MACHINE, POT AND PAN COMMERCIAL, ELECTRIC, (LEFT TO RIGHT) OR (RIGHT TO LEFT) OPERATION. W/ACCESSORIES	FED-OO-W-1307	(Booster & Heating Elements) 0.80			
PW-6-1	Type I, Style A, (Two Door-Pass-Through)		(Pumps & Motors) 1.00		68.52 M	

Note:  
\* Assumed on-time factor.

## STORAGE AREA

Equip. Ident. Number	Item Description	Spec.	On-time Factor	Btu Rating		
				Gas	Electric	Steam
R-1	FROZEN FOOD CABINET, MECHANICALLY REFRIGERATED, COMMERCIAL, SELF-CONTAINED, (REACH-IN), ELECTRIC	MIL-F-43408				
R-1-1	20 Cu. Ft. (Minimum) W/Legs	(COMMERCIAL)	0.85		2.12 M	
R-1-2	Size 2, 45 Cu. Ft. (Minimum), W/Legs, Grade A	MIL-F-43408	0.85		3.18 M	
R-1-3	Size 3, 65 Cu. Ft. (Minimum), W/Legs, Grade A		0.85		3.18 M	
S-26	REFRIGERATOR, MECHANICAL, COMMERCIAL, SELF-CONTAINED, (REACH-IN), ELECTRIC	FED-AA-R-200				
S-26-1	Type H, Size 20 Cu. Ft. (Minimum), Style 1, W/Legs		0.70		0.74 M	
S-26-2	Type H, Size 45 Cu. Ft. (Minimum), Style 1, W/Legs		0.70		1.49 M	
S-26-3	Type H, Size 65 Cu. Ft. (Minimum), Style 1, W/Legs		0.70		2.23 M	
R-2	REFRIGERATOR, PREFABRICATED, MECHANICAL, COMMERCIAL, WALK-IN, WITH REMOTE AIR-COOLED REFRIGERATION UNIT, (UNIT TO BE INSULATED FOR OOF.)	MIL-R-43900				
R-2-1	Size 1, W/Floor Panels, Operated At Normal Temp. 35°F, (Chill)		0.70		1.78 M	
R-2-2	Size 1, W/Floor Panels, Operated at Normal Temp. 0° Minus 10°F, (Freeze)		0.70		3.14 M	

Equip. Ident. Number	Item Description	Spec.		On-time Factor	Btu Rating		
		Military Federal Commercial			Gas	Electric	Steam
R-2-3	Size 1, W/O Floor Panels, Operated at Normal Temp. 35°F, (Chill)			0.70		1.78 M	
R-2-4	Size 1, W/O Floor Panels, Operated at Normal Temp. 0° Minus 10°F, (Freeze)			0.70		3.14 M	
R-2-5	Size 2, W/Floor Panels, Operated at Normal Temp. 35°F, (Chill)			0.70		2.10 M	
R-2-6	Size 2, W/Floor Panels, Operated at Normal Temp. 0° Minus 10°F, (Freeze)			0.70		4.19 M	
R-2-7	Size 2, W/O Floor Panels, Operated At Normal Temp. 35°F, (Chill)			0.70		2.10 M	
R-2-8	Size 2, W/O Floor Panels, Operated At Normal Ter 0° Minus 10°F, (Freeze)			0.70		4.19 M	
R-2 9	Size 3, W/Floor Panels, Operated At Normal Temp. 35°F, (Chill)			0.70		1.78 M	
R-2-10	Size 3, W/Floor Panels, Operated At Normal Temp. 0° Minus 10°F, (Freeze)			0.70		3.14 M	
R-2-11	Size 3, W/O Floor Panels, Operated At Normal Temp. 35°F, (Chill)			0.70		1.78 M	
R-2-12	Size 3, W/O Floor Panels, Operated At Normal Temp. 0° Minus 10°F, (Freeze)			0.70		3.14 M	
R-2-13	Size 4, W/Floor Panels, Operated At Normal Temp. 35°F, (Chill)			0.70		1.71 M	

Equip. Ident. Number	Item Description	Spec.		On-time Factor	Btu Rating		
		Military Federal Commercial			Gas	Electric	Steam
R-2-14	Size 4, W/Floor Panels, Operated At Normal Temp. 0° Minus 10°F, (Freeze)			0.70		4.19 M	
R-2-15	Size 4, W/O Floor Panels, Operated At Normal Temp. 35°F, (Chill)			0.70		1.78 M	
R-2-16	Size 4, W/O Floor Panels, Operated At Normal Temp. 0° Minus 10°F, (Freeze)			0.70		4.19 M	
R-2-17	Size 5, W/Floor Panels, Operated At Normal Temp. 35°F, (Chill)			0.70		2.10 M	
R-2-18	Size 5, W/Floor Panels, Operated At Normal Temp. 0° Minus 10°F, (Freeze)			0.70		4.19 M	
R-2-19	Size 5, W/O Floor Panels, Operated At Normal Temp. 35°F, (Chill)			0.70		2.10 M	
R-2-20	Size 5, W/O Floor Panels, Operated At Normal Temp. 0° Minus 10°F, (Freeze)			0.70		4.19 M	
R-2-21	Size 6, W/Floor Panels, Operated At Normal Temp. 35°F, (Chill)			0.70		4.19 M	
R-2-22	Size 6, W/Floor Panels, Operated At Normal Temp. 0°F, (Freeze)			0.70		6.29 M	
R-2-23	Size 6, W/O Floor Panels, Operated At Normal Temp. 35°F, (Chill)			0.70		4.19 M	
R-2-24	Size 6, W/O Floor Panels, Operated At Normal Temp. 0° Minus 10°F, (Freeze)			0.70		6.29 M	



Equip. Ident. Number	Item Description	Spec.		On-time Factor	Btu Rating		
		Military Federal Commercial			Gas	Electric	Steam
R-2-25	Size 7, W/Floor Panels, Operated At Normal Temp. 35°F, (Chill)			0.70		4.19 M	
R-2-26	Size 7, W/Floor Panels, Operated At Normal Temp. 0° Minus 10°F, (Freeze)			0.70		10.48 M	
R-2-27	Size 7, W/O Floor Panels, Operated At Normal Temp. 35°F, (Chill)			0.70		4.19 M	
R-2-28	Size 7, W/O Floor Panels, Operated At Normal Temp. 0° Minus 10°F, (Freeze)			0.70		10.48 M	
R-2-29	Size 8, W/Floor Panels, Operated At Normal Temp. 35°F, (Chill)			0.70		2.10 M	
R-2-30	Size 8, W/Floor Panels, Operated At Normal Temp. 0°F Minus 10°F, (Freeze)			0.70		6.29 M	
R-2-31	Size 8, W/O Floor Panels, Operated At Normal Temp. 35°F, (Chill)			0.70		2.10 M	
R-2-32	Size 8, W/O Floor Panels, Operated At Normal Temp. 0° Minus 10°F, (Freeze)			0.70		6.29 M	
R-2-33	Size 9, W/Floor Panels, Operated At Normal Temp. 35°F, (Chill)			0.70		3.14 M	
R-2-34	Size 9, W/Floor panels, Operated At Normal Temp. 0° Minus 10°F, (Freeze)			0.70		6.29 M	
R-2-35	Size 9, W/O Floor Panels, Operated At Normal Temp. 35°F, (Chill)			0.70		3.14 M	

Equip. Ident. Number	Item Description	Spec.		On-time Factor	Btu Rating		
		Military	Federal Commercial		Gas	Electric	Steam
R-2-36	Size 9, W/O Floor Panels, Operated At Normal Temp. 0° Minus 10°F, (Freeze)			0.70		6.29 M	
R-2-37	Size 10, W/Floor Panels, Operated At Normal Temp. 35°F, (Chill)			0.70		2.10 M	
R-2-38	Size 10, W/Floor Panels, Operated At Normal Temp. 0° Minus 10°F, (Freeze)			0.70		6.29 M	
R-2-39	Size 10, W/O Floor Panels, Operated At Normal Temp. 35°F, (Chill)			0.70		2.10 M	
R-2-40	Size 10, W/O Floor Panels, Operated At Normal Temp. 0°F Minus 10°F, (Freeze)			0.70		6.29 M	
R-2-41	Size 11, W/Floor Panels, Operated At Normal Temp. 35°F (Chill)			0.70		2.10 M	
R-2-42	Size 11, W/Floor Panels, Operated At Normal Temp 0° 10°F, (Freeze)			0.70		6.29 M	
R-2-43	Size 11, W/O Floor Panels, Operated At Normal Temp. 35°F, (Chill)			0.70		2.10 M	
R-2-44	Size 11, W/P Floor Panels, Operated At Normal Temp. 0° Minus 10°F, (Freeze)			0.70		6.29 M	
R-2-45	Size 12, W/Floor Panels, Operated At Normal Temp. 35°F, (Chill)			0.70		4.19 M	
R-2-46	Size 12, W/Floor Panels, Operated At Normal Temp. 0° Minus 10°F, (Freeze)			0.70		6.29 M	
R-2-47	Size 12, W/O Floor Panels, Operated At Normal Temp. 35°F (Chill)			0.70		4.19 M	
R-2-48	Size 12, W/O Floor Panels, Operated At Normal Temp. 0° Minus 10°F, (Freeze)			0.70		6.29 M	

DINING AREA

Equip. Ident. Number	Item Description	Spec. Military Federal Commercial	On-time Factor	Btu Rating		
				Gas	Electric	Steam
S-7	CASH REGISTER					
S-7-1	Electric, 41 keys				No Elec. Power given	
DR-6	MUSIC BACKGROUND SYSTEM	COMMERCIAL				
DR-6-1	W/O Paging System, (To Consist of Tapes, Amplifier, (35 Watts), Microphone, (Stand Mounted), And Speakers (8" Round W/70-Volt Transformer)				No Elec. Power given	
DR-6-2	W/Paging System, (To Consist of Tapes, Amplifier, (35 Watts), Microphone, (Stand Mounted), And Speakers (8" Round W/70-Volt Transformer)				citto	
DR-8	POLISHER, FLOOR, ELECTRIC, (COMMERCIAL TYPE)	FED-00-P-570	1.00*		2.12 M	
DF-8-1	Class A, Style 1, Size 3 (14-1/2" Diameter)					
DR-11	SHAMPOOER, RUG, HEAVY-DUTY, ELECTRIC	COMMERCIAL				
DR-11-1	2-Gallon Capacity Solution Tank, 1-Qt Cap Defoamer Tank		1.00*		3.18 M	

Note: \_\_\_\_\_

\* Assumed on-time factor.

Equip. Ident. Number	Item Description	Spec. Military Federal Commercial	On-time Factor	Btu Rating		
				Gas	Electric	Steam
DR-14	CLEANER, VACUUM, ELECTRIC, (COMMERCIAL), MOBILE	INT-FED-W- C-001750	1.00*		4.77 M	
DR-14-1	Type II, Class A, Size 1, Style 1, Vertical Tank, W/Elower Outlet, (Design For Water Lift)					

Note:

\* Assumed on-time factor.